Order of Magnitude Improvement to Magristor Processor Computational Power via Controllable Induced Superconductivity of Select HbN Nodes

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Introduction

Revolutionary as-is, magristor processors promise to enable the handling of extremely large numbers in order to enhance the ability of conventional processors to perform certain tasks such as codebreaking. Of many revolutionary features, magristor processors utilize conductive planes rather than conductive wires. As hexagonal boron nitride is a conductor in parallel with its two-dimensional plane and is an insulator in the transverse direction, this material and configuration is well-suited to allowing for many stacked layers each of which operate independently in accordance with the concept outlaid in 24 November 2023.

Abstract

While quite large numbers may be represented in a magristor computing plane; already much larger than possible in conventional computers; even larger numbers could be represented and more complex computations supported through enabling the interconnection of multiple computing planes in a controlled fashion.

Insights into room-temperature superconduction in insulators such as graphene or HbN promulgated by this author on 1 January 2024 may be coupled with the 24 November 2023 concept in order to facilitate the controlled interplay of signals between magristor computing planes.

In order for a single node of HbN to be rendered superconductive in the transverse direction (that which is ordinarily insulating,) Coulomb Force Lines must be generated which converge on the node one wishes to render superconductive. This may be achieved through switchable crystalline CFL generators which are themselves two-dimensional in nature and optically switched. In this concept, a single node of HbN may be made to be conditionally superconductive in the transverse direction by directing a CFL from six points around the perimeter of the hexagonal sheet/layer. These lines would converge at a grid coordinate on the plane. The mere presence of a CFL passing through other nodes from anything fewer than six directions would not alter the conductive properties of those nodes sufficiently to prevent them from acting as insulators. However, the convergence of strong Coulomb Force from six directions converging upon a single node would be sufficient to ensure the persistent east-west orientation of the electrons in the material relative to the electrons to be superconducted and to ensure their passage through the center of the hexagonal nodes, keeping as far as possible from the electrons in the

material as possible in order to minimize the magnetic interaction between the electrons being superconducted and the electrons in the material.

The high speed of magristor processing relative to the previously promulgated Phononic Collision Matrix processor recommends it as a replacement for the promising, if experimental PCM concept.

Conclusion

The ability to convert multiple magristor processing planes into unitary, interconnected computing architectures is the next logical step in reaping the most from the technology.